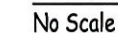
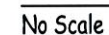


FWP # 7113724



MISSOURI RIVER

LEGEND

MAJOR CONTOUR (5 FOOT INTERVAL)

MINOR CONTOUR (1 FOOT INTERVAL)

ROADS AND PARKING- EXISTING

TOP OF BANK

DAYLIGHT LINE (EDGE OF CUT)

CABLE MAT - EXISTING

ROADS AND PARKING - NEW

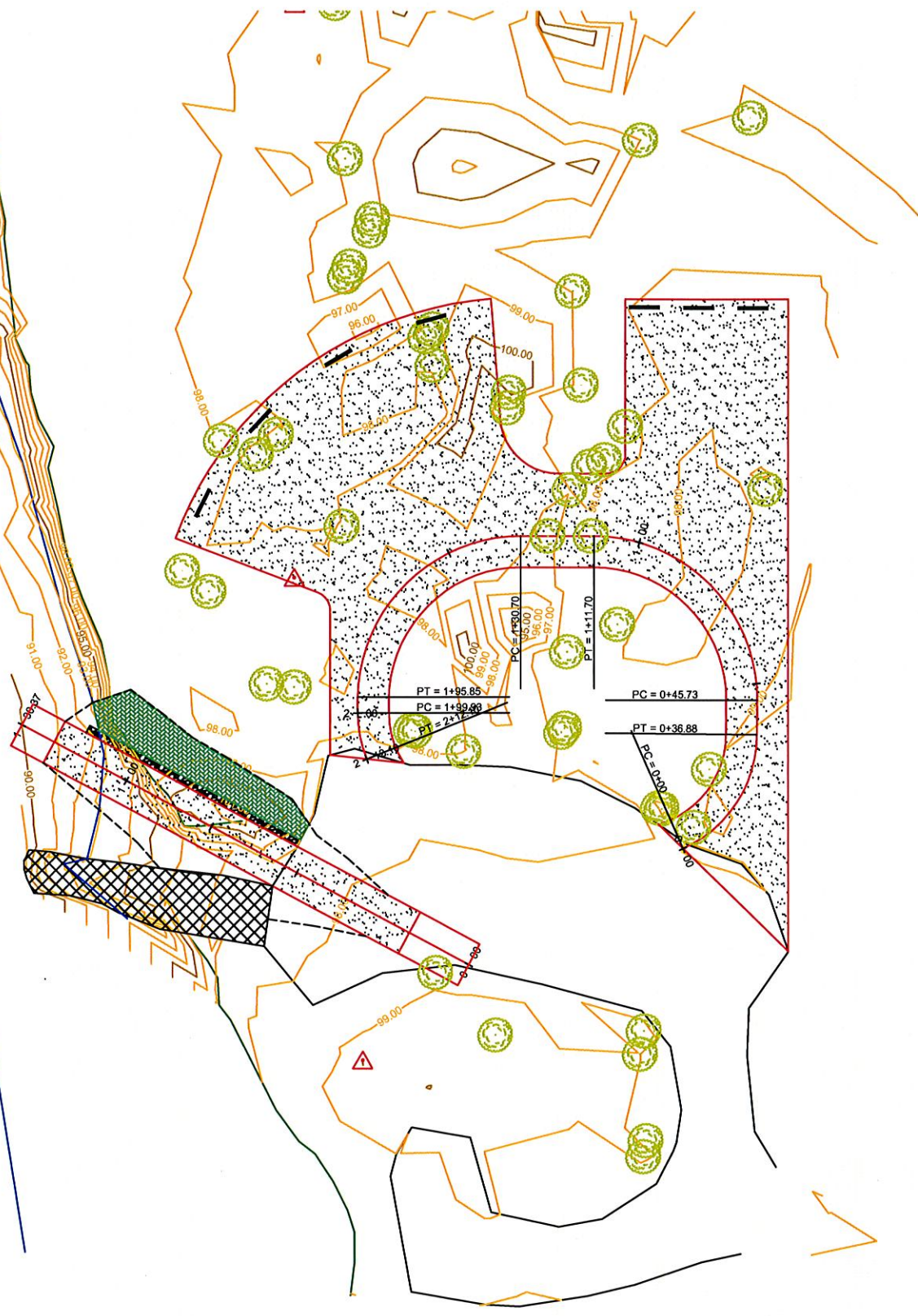
WATERLINE (5/10/13)

COTTON WOOD TREE

CONTROL POINT

EROSION CONTROL FABRIC

DRAIN ROCK



Notes:

- 1) FWP Engineer will stake radius points, parking corners, centerline stations of alignments and provide reference elevations.
- 2) The Contractor shall use best management practices to prevent silt, soil and debris from entering the water. This may include straw, gravel or fabric. Temporary dikes to divert rainwater may be used, provided they are removed and the gravel or soil returned to the original condition. Exposed soil may require straw or similar cover to minimize erosion caused by rain. Other appropriate methods may be used at the Contractors' discretion or as directed by the owner.
- 3) Equipment used in or near water shall not leak fluids. It shall be power washed before use on the site and examined by the engineer.
- 4) Assuming a 4" depth of root zone, the total excavation required to subgrade elevation is estimated to be 360 cubic yards, including boat ramp grade. Excavation is bid as a lump sum.
- 5) All excess excavated material shall be removed to spoils area, leveled to match natural grades, and seeded. All areas disturbed during construction shall be seeded. Refer to Section 02936. The spoils area will be located on adjacent FWP property.
- 6) Remove trees within the new parking area. Refer to Section 02110. Limb trees and remove any remaining roots. All material from the limbs and roots to be removed from the site. Logs shall be placed as barriers as determined by FWP Engineer.
- 7) Existing barrier rocks shall be removed as necessary to allow for parking area expansion. Removed barrier rocks will be placed along the edge of the new parking area as determined by FWP Engineer. No new barrier rocks will be required. Bidders are to include the cost of removing and placing the barrier rocks under the Excavation bid item.
- 8) All material removed from the site shall be disposed of in a safe and legal manner.
- 9) Transitions from new graveled areas to vegetated areas shall be uniform, well defined, and follow the alignment of the roads and parking layouts.
- 10) The contractor is responsible for locating and protecting utilities within the construction area including access routes to the construction area.
- 11) The contractor is required to notify and coordinate all work activities with the FWP Project Engineer. Public notification of site closure may be necessary, and requires a minimum notice of seven days.
- 12) Submittals are required on all products used in the project. refer to specifications for submittal requirements.
- 13) Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.
- 14) Provide all temporary signing, personnel and traffic control devises as required by federal, state and local regulations.
- 15) Geotechnical Information: The soils at the site are sandy loams stratified with coarse sand and gravel. the depth to a restrictive feature is over 80 inches.
- 16) The Owner is responsible for obtaining all necessary permits.

OVERALL SITE PLAN

J. Kevin McDonnell	2.2014				
DRAWN BY:	DATE:	REVISED BY:	DATE:	APPROVED BY:	DATE:
CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:



OVERALL SITE PLAN
Fairweather FAS near Clarkston, MT

LEGEND

- MAJOR CONTOUR (5 FOOT INTERVAL)
- MINOR CONTOUR (1 FOOT INTERVAL)
- ROADS AND PARKING- EXISTING
- TOP OF BANK
- DAYLIGHT LINE (EDGE OF CUT)
- CABLE MAT - EXISTING
- ROADS AND PARKING - NEW
- WATERLINE (5/10/13)
- COTTON WOOD TREE
- CONTROL POINT
- EROSION CONTROL FABRIC
- DRAIN ROCK

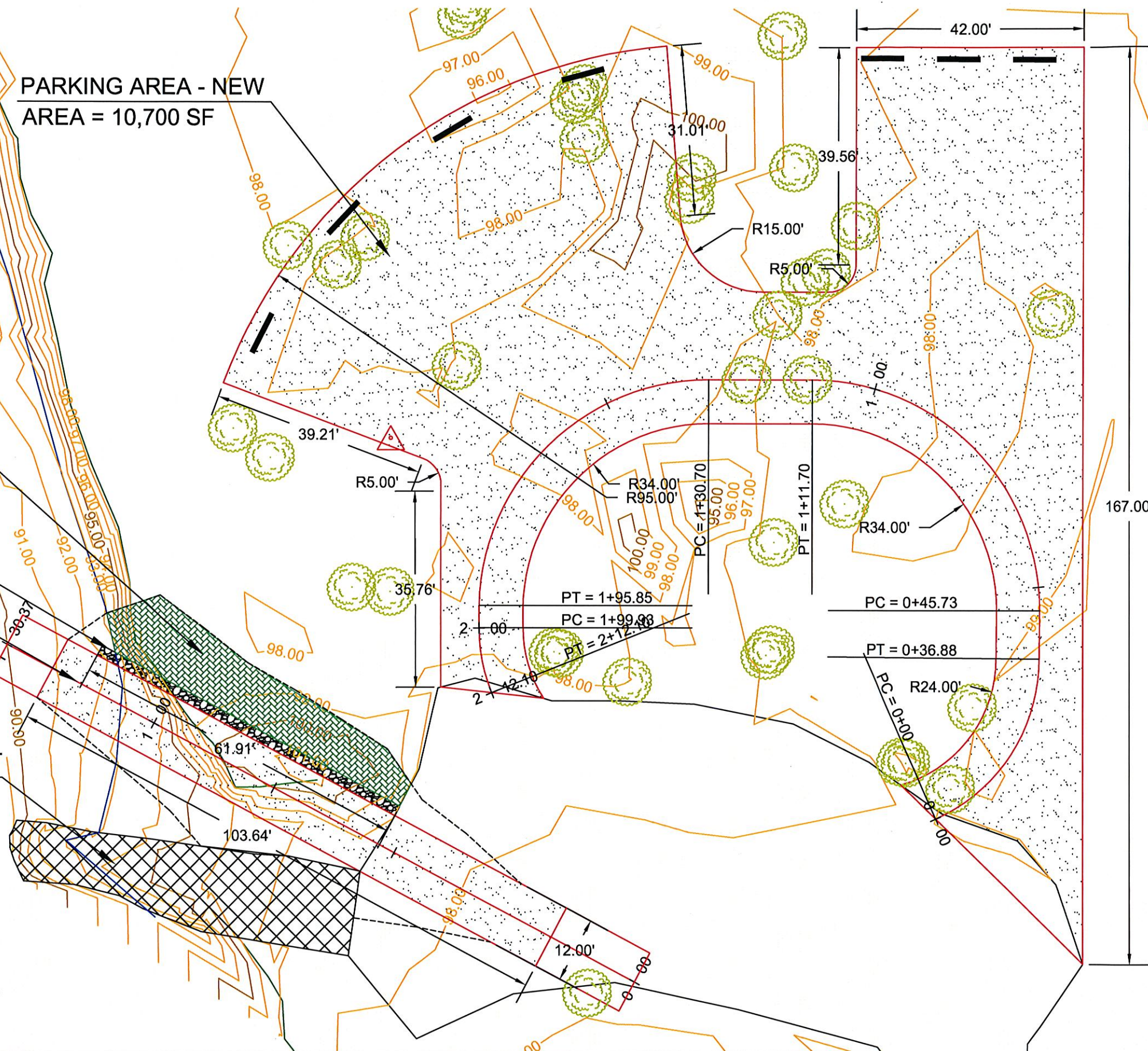
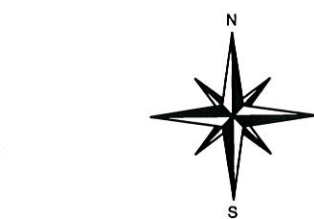
EROSION CONTROL FABRIC
SURFACE AREA = 600 SF

DRAIN ROCK

BOAT RAMP SURFACE

EXISTING CABLE MAT

PARKING AREA - NEW
AREA = 10,700 SF



J. Kevin McDonnell	2.2014				
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CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:

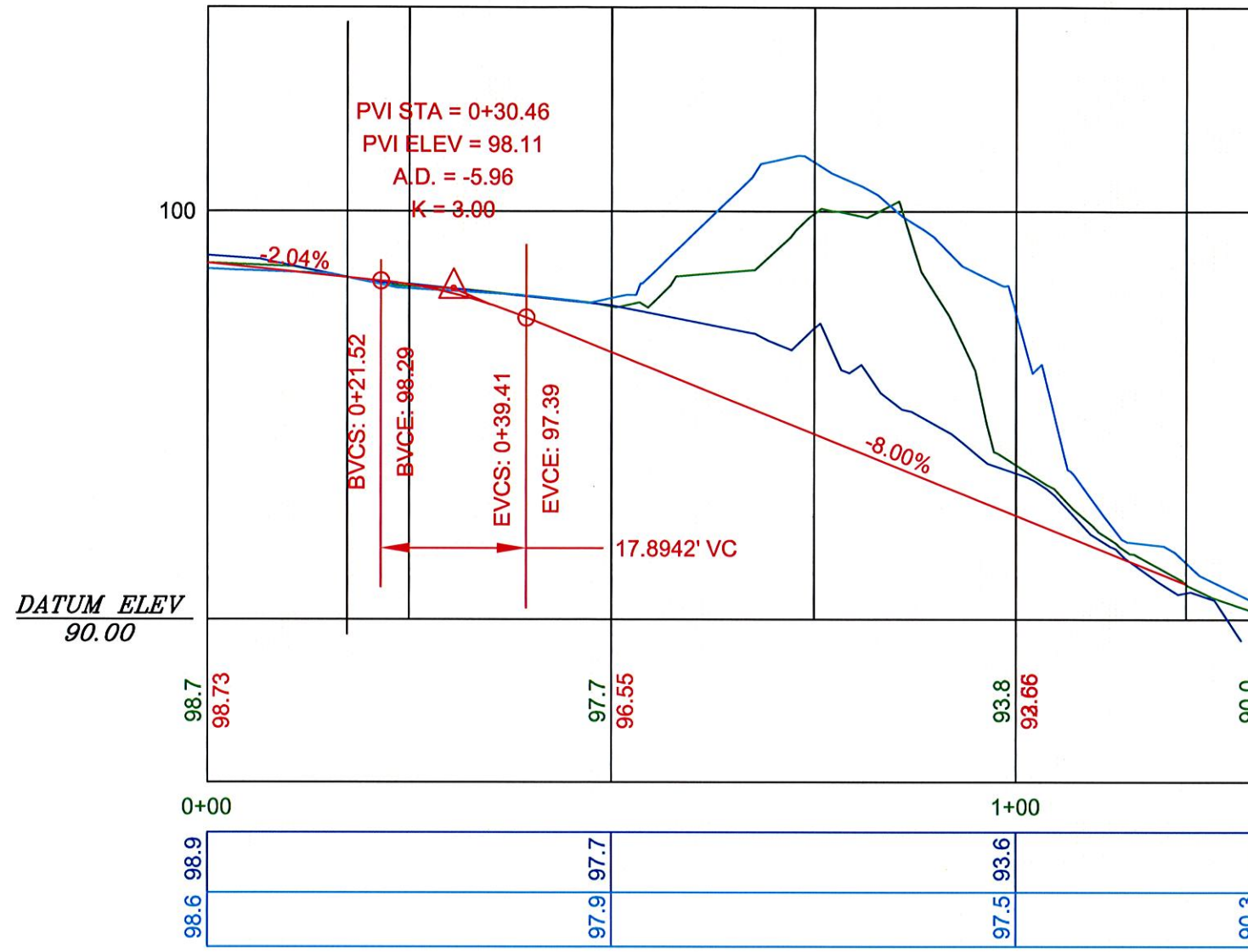


**Montana Fish,
Wildlife & Parks**

SITE DETAIL
Fairweather FAS near Clarkston, MT



SHEET:
3 of 7



PROFILE LEGEND	
—	FINISH GRADE - CENTERLINE
—	EXISTING GRADE - CENTERLINE
—	EXISTING GRADE - 6' LEFT OF CENTERLINE
—	EXISTING GRADE - 6' RIGHT OF CENTERLINE



LEGEND	
—	MAJOR CONTOUR (5 FOOT INTERVAL)
—	MINOR CONTOUR (1 FOOT INTERVAL)
—	ROADS AND PARKING- EXISTING
—	TOP OF BANK
---	DAYLIGHT LINE (EDGE OF CUT)
[Hatched Box]	CABLE MAT - EXISTING
[Dotted Box]	ROADS AND PARKING - NEW
---	WATERLINE (5/10/13)
[Circle]	COTTON WOOD TREE
[Triangle]	CONTROL POINT
[Hatched Box]	EROSION CONTROL FABRIC
[Hatched Box]	DRAIN ROCK

J. Kevin McDonnell	2.2014				
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CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:

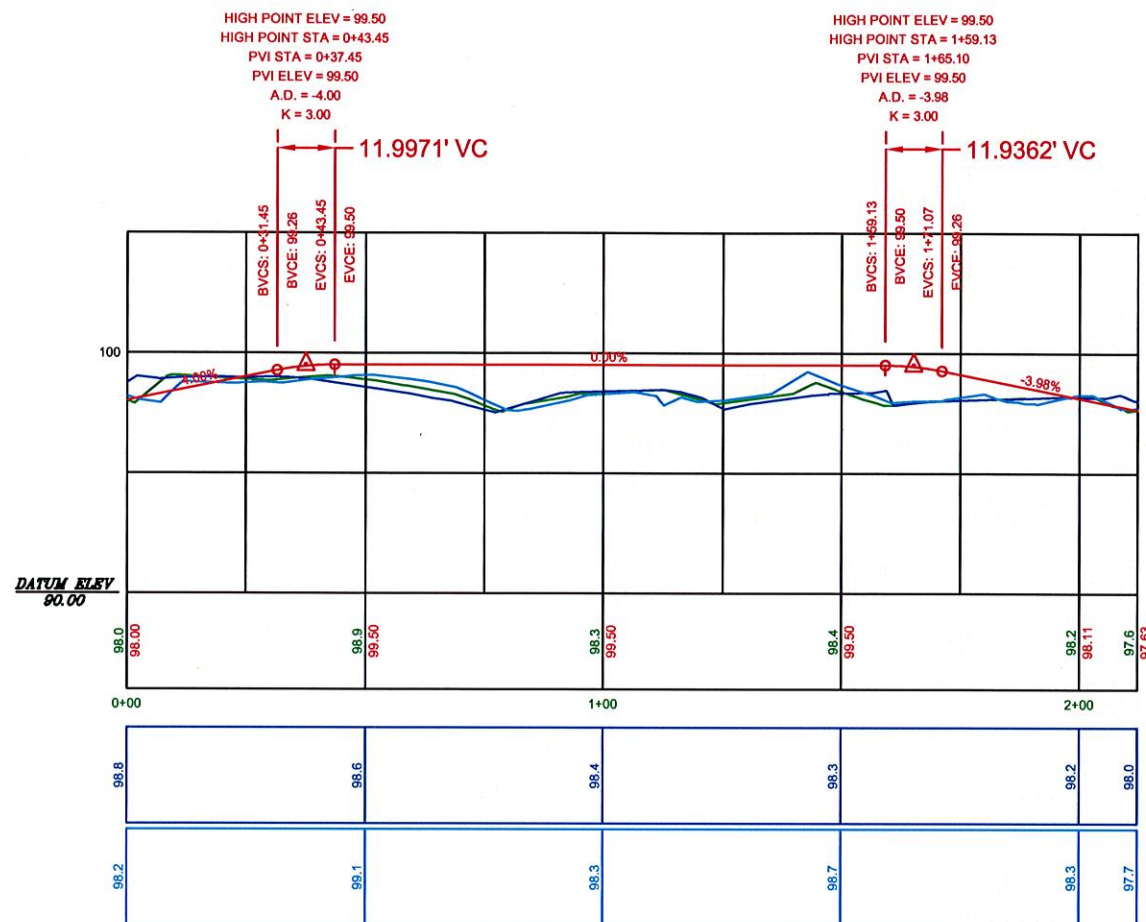


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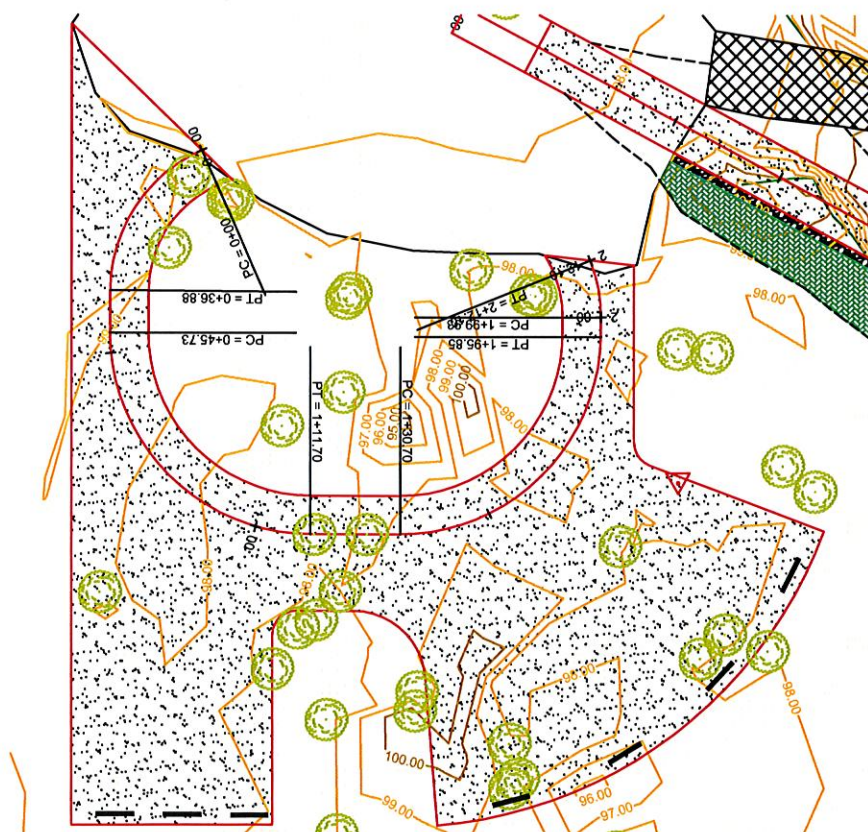
PROFILE 1 - BOAT RAMP
Fairweather FAS near Clarkston, MT



SHEET:
4
of
7



PROFILE LEGEND	
—	FINISH GRADE - CENTERLINE
—	EXISTING GRADE - CENTERLINE
—	EXISTING GRADE - 8' LEFT OF CENTERLINE
—	EXISTING GRADE - 8' RIGHT OF CENTERLINE



LEGEND	
—	MAJOR CONTOUR (5 FOOT INTERVAL)
—	MINOR CONTOUR (1 FOOT INTERVAL)
—	ROADS AND PARKING- EXISTING
—	TOP OF BANK
—	DAYLIGHT LINE (EDGE OF CUT)
	CABLE MAT - EXISTING
	ROADS AND PARKING - NEW
	WATERLINE (5/10/13)
	COTTON WOOD TREE
	CONTROL POINT
	EROSION CONTROL FABRIC
	DRAIN ROCK

J. Kevin McDonnell	2.2014				
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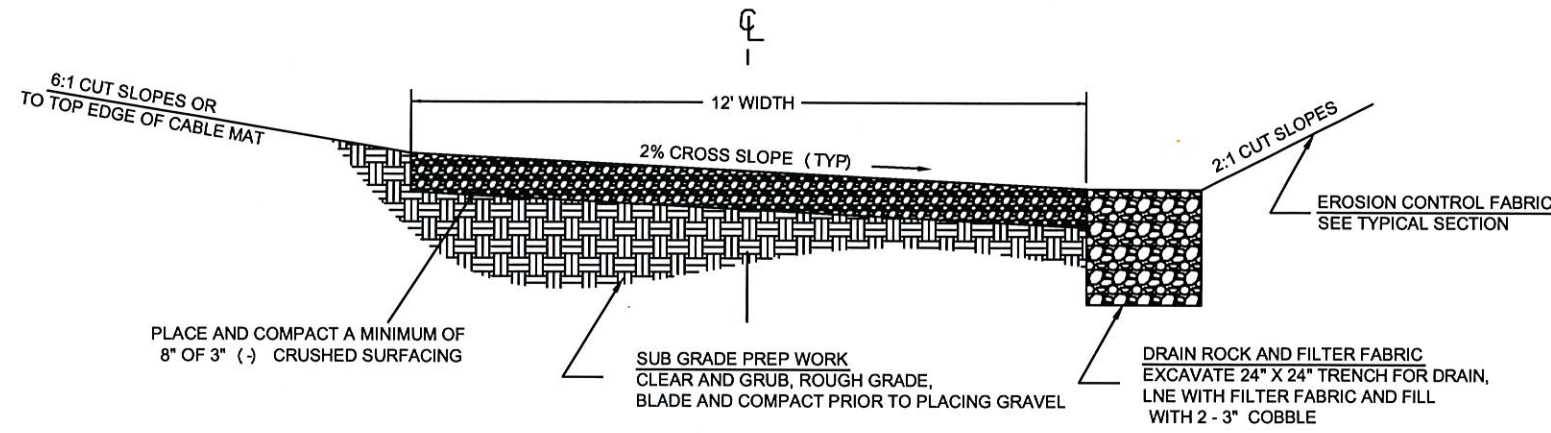


**Montana Fish,
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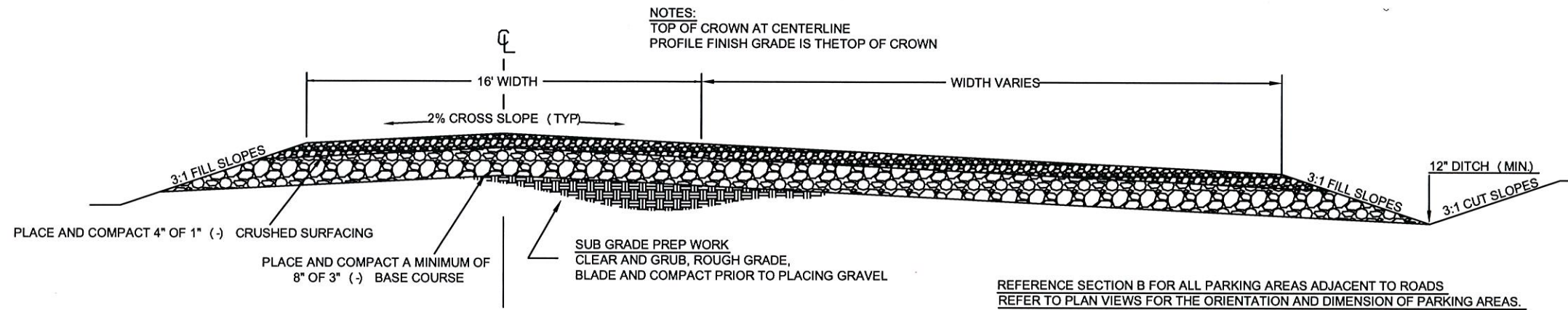
PROFILE 2 - PARKING AREA EXPASION
Fairweather FAS near Clarkston, MT



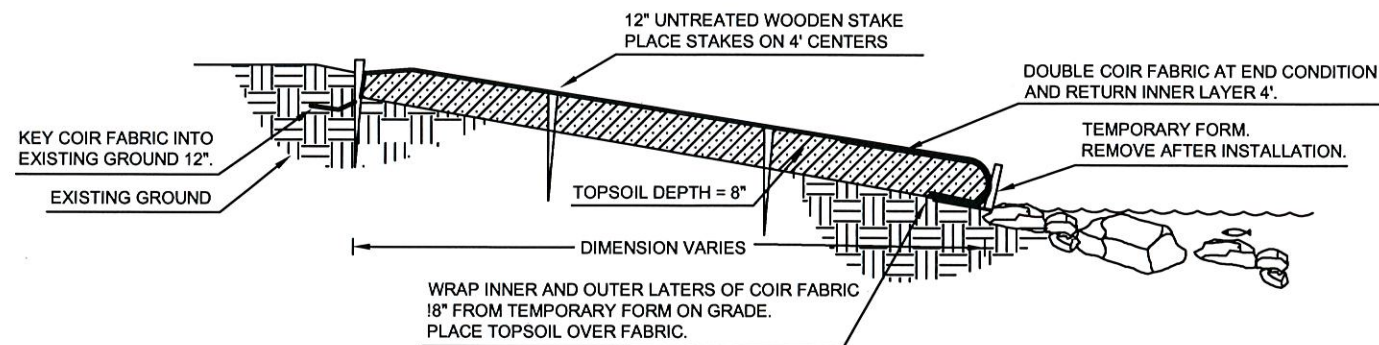
SHEET:
5 of 7



TYPICAL 12' BOAT RAMP SECTION: SECTION A
NOT TO SCALE



TYPICAL ROAD AND PARKING SECTION: SECTION B
NOT TO SCALE



EROSION CONTROL FABRIC SECTION
NOT TO SCALE

J. Kevin McDonnell	2.2014				
DRAWN BY:	DATE:	REVISED BY:	DATE:	APPROVED BY:	DATE:
CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:



**Montana Fish,
Wildlife & Parks**

TYPICAL SECTIONS
Fairweather FAS near Clarkston, MT



SHEET:
6
of
7

BOAT RAMP CROSS SECTIONS AND VOLUME TABLE

- NOTES:
- 1. EXCAVATION VOLUMES AS SHOWN IN THE VOLUME TABLE ARE CALCULATED TO THE FINISH GRADE.
 - 2. REER TO TYPICAL SECTIONS FOR CUT SLOPES AND DETAILS.

CROSS SECTION LEGEND

- FINISH GRADE
- EXISTING GRADE

STATION	AREAS Square Feet		VOLUMES Cubic Yards		CUMULATIVE VOLUMES Cubic Yards	
	CUT	FILL	CUT	FILL	CUT	FILL
0+30	2.38	0.00	2.43	0.00	2.43	0.00
0+40	10.75	0.00	6.56	0.00	9.00	0.00
0+50	24.70	0.00	16.80	0.00	25.79	0.00
0+60	66.02	0.00	30.90	0.00	56.69	0.00
0+70	100.82	0.00	40.85	0.00	97.54	0.00
0+80	119.75	0.00	40.25	0.00	137.78	0.00
0+90	97.58	0.00	30.88	0.00	168.67	0.00
1+00	69.18	0.00	20.69	0.00	189.35	0.00
1+10	42.53	0.00	8.86	0.15	198.22	0.15
1+20	5.33	0.79	0.99	0.15	199.20	0.29
1+30	0.00	0.00	0.00	0.00	199.20	0.29

